

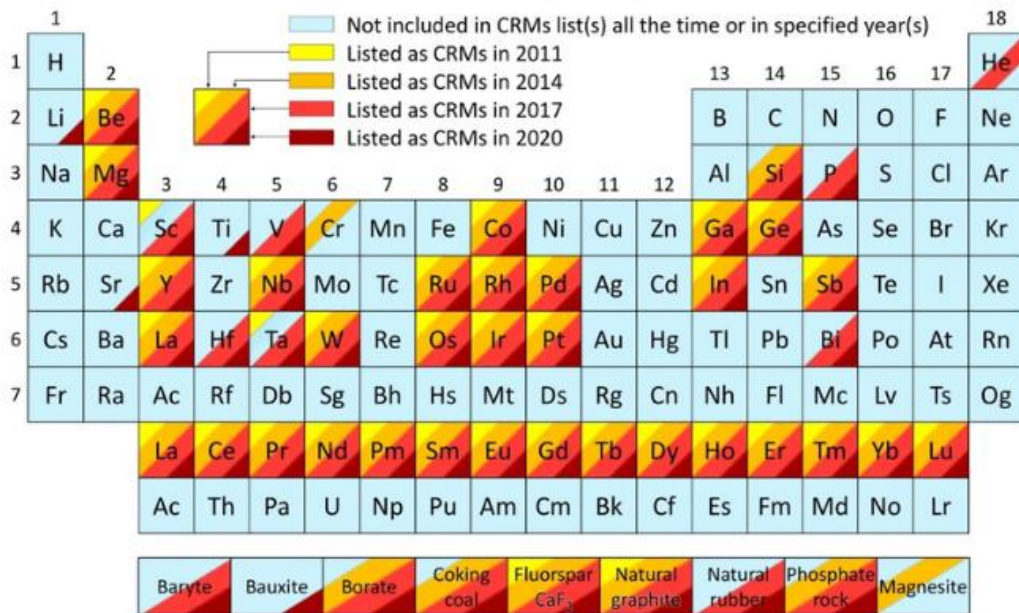
WORKSHOP MATERIALEN

- Materiaalstromen
- Materiaalpaspoort
- Materiaal efficiency
- Materiaal afhankelijkheid



Industrie afhankelijk van (eindige) grondstoffen

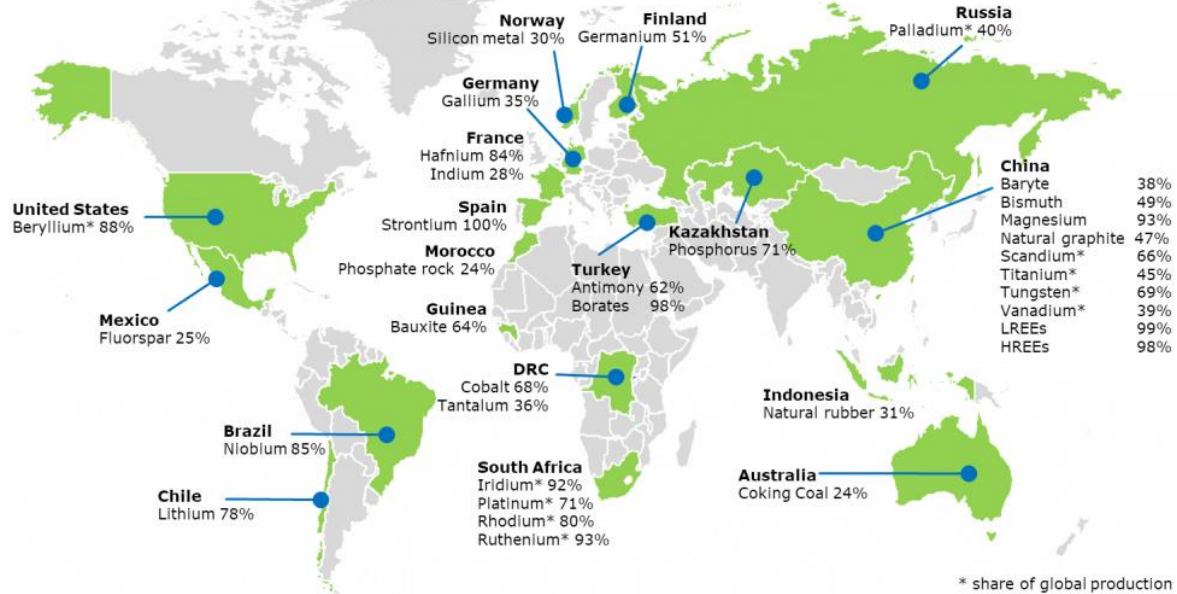
Critical Raw Materials (CRMs) for the EU



Critical raw materials list for 2011-2020 overlaid on the periodic table of elements (adapted from [8]).

EU voor 75% afhankelijk van import grondstoffen

Countries accounting for largest share of EU supply of CRMs



Minder risico door circulair produceren

Energie- en grondstofprijzen

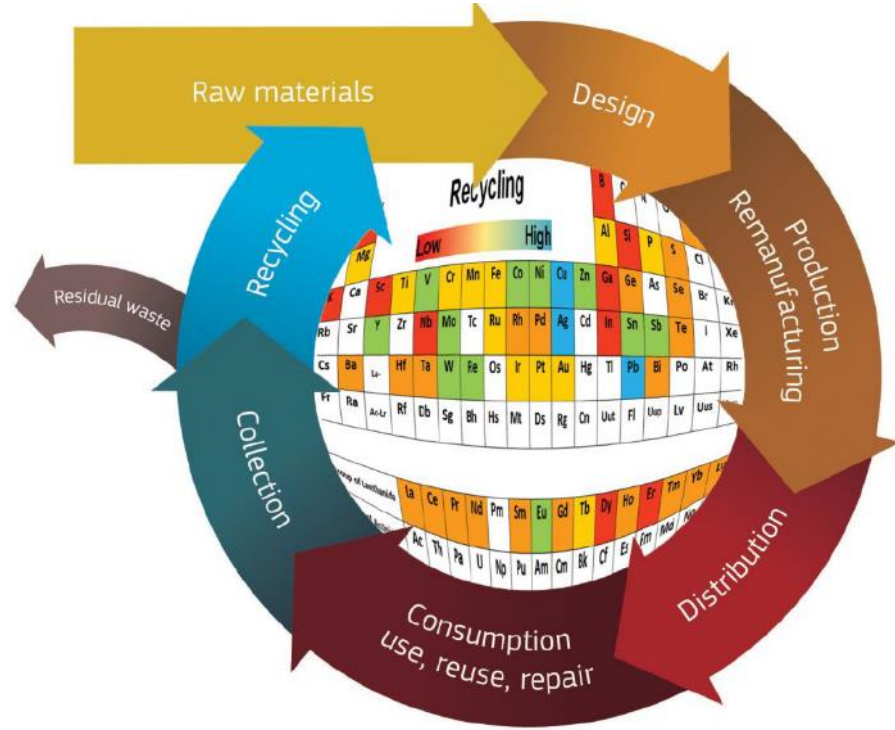
Uitval productie elders

Kritische consument

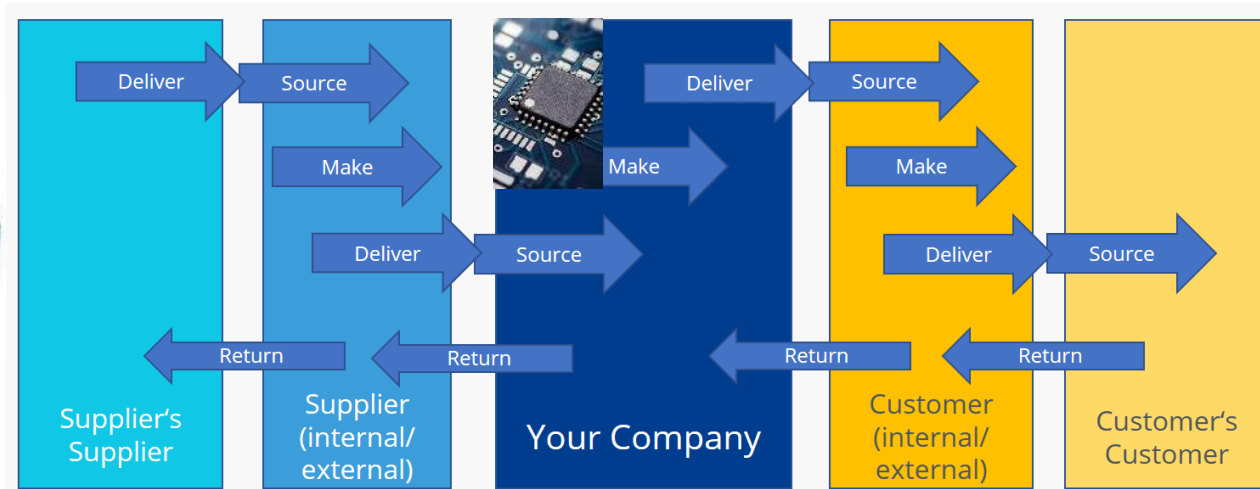
Toekomstige werknemers

Wetgeving

Banken en investeerders



Daarbij is inzet hele keten nodig



Van lineaire naar een circulaire keten

Linear SCOR Model

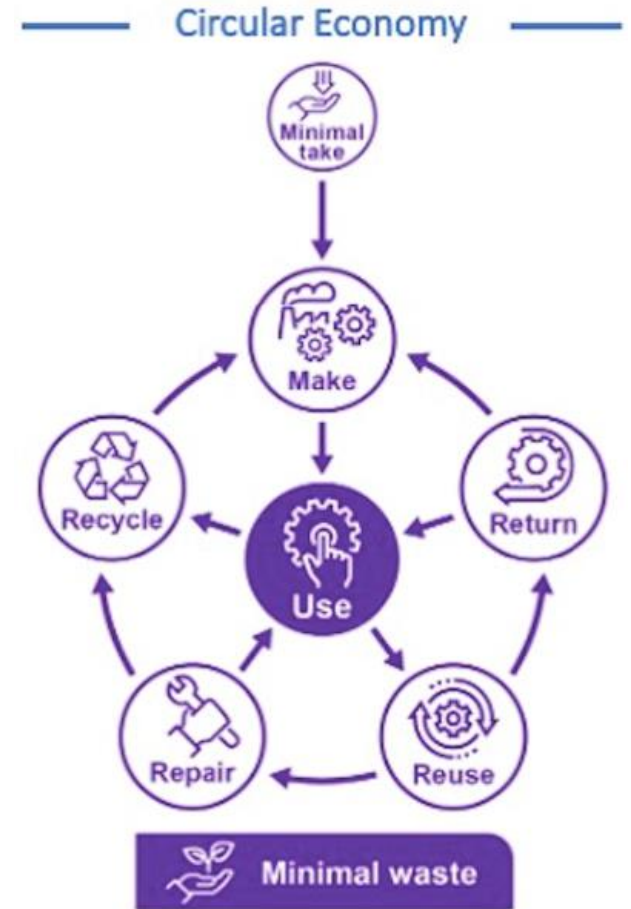


Circular SCOR Model



Voordelen CE

- Beter omgaan met schaarste
- Verminderen druk op milieu
- Betere concurrentiepositie
- Bijdrage aan groei en innovatie
- Anticiperen op wetgeving
- Aantrekken en behouden talent

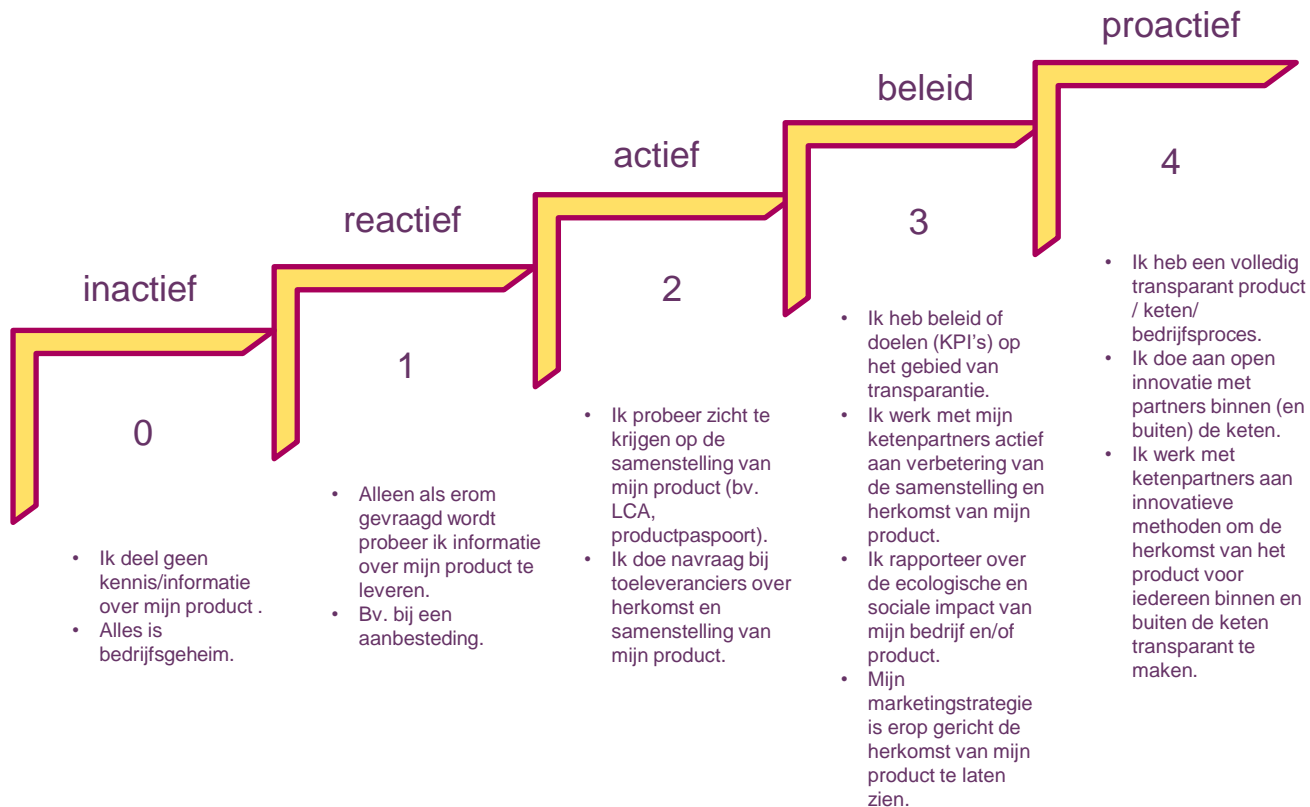


Transparantie is nodig om meer grip te krijgen op materialen in de keten

<https://www.polestar.com/uk/news/clarifications-with-klaren-transparency-and-traceability/>

<https://www.polestar.com/us/news/kindred-spirits-circular/>

Zelf-assessment: hoe transparant is mijn bedrijf?



ONTWIKKELINGEN REGELGEVING EN HUIDIGE INITIATIEVEN

Huidige Informatie Eisen

- Huidige Ecodesign verordeningen
- Waste Framework Directive/REACH
 - SCIP database
- Conflict Minerals (EU en VS)
- Non-Financial Reporting Directive

FORSE TOENAME INFORMATIE EISEN

Battery regulation – 2026

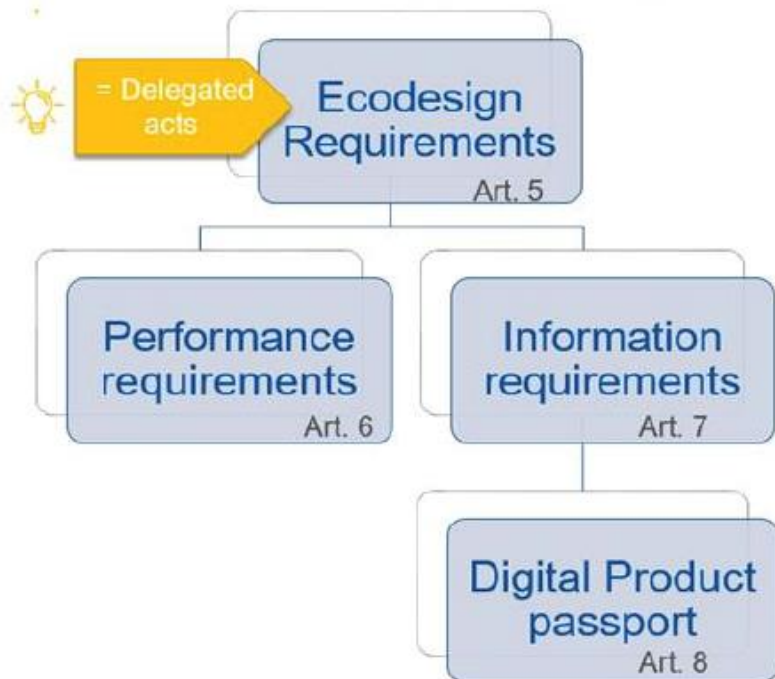
Ecodesign Regulation for Sustainable Products – 2024

Circular Textiles – 2022

Construction products regulation – 2022

Corporate Sustainability Reporting Directive - 2024

Key Ecodesign product aspects



- **durability, reliability; reusability; upgradability;**
- **reparability;** possibility of **maintenance and refurbishment;**
- presence of **substances of concern;**
- **energy use or energy efficiency;**
- **resource use or resource efficiency;**
- **recycled content;**
- possibility of **remanufacturing and recycling;**
- possibility of **recovery** of materials;
- **environmental impacts**, including carbon and environmental footprint;
- expected generation of **waste** materials.

ESPR

Digital Product Passport (DPP)



Tracking of **raw materials extraction/production**, supporting due diligence efforts



Benefit **market surveillance authorities and customs authorities**, by making available information they would need to carry out their tasks



Enable **manufacturers** to create products **digital twins**, embedding all the information required



Make available to **public authorities and policy makers** reliable information. Enable to link **incentives** to **sustainability performance**



Tracking the life story of a product, enabling services related to its **remanufacturing, reparability, re-use/re-sale/second-life, recyclability**, new business models



Allow **citizens** to have access to **relevant and verified information** related to the characteristics of the products they own or are considering to buy/rent (e.g. using apps able to read the identifier)

EU Taxonomy – wat is groen?



Climate change mitigation



Climate change adaptation



sustainable and protection of
water and marine resources;



transition to a circular economy

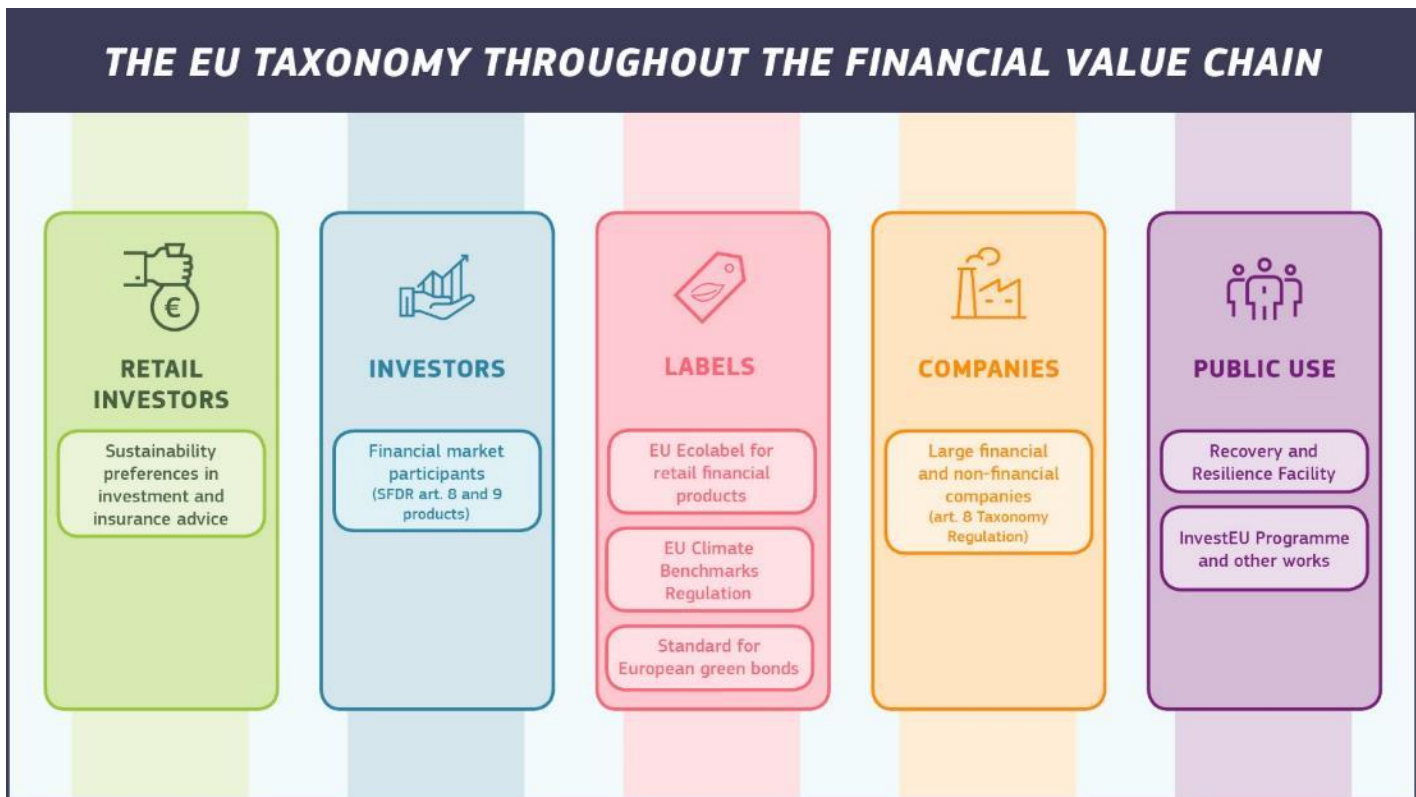


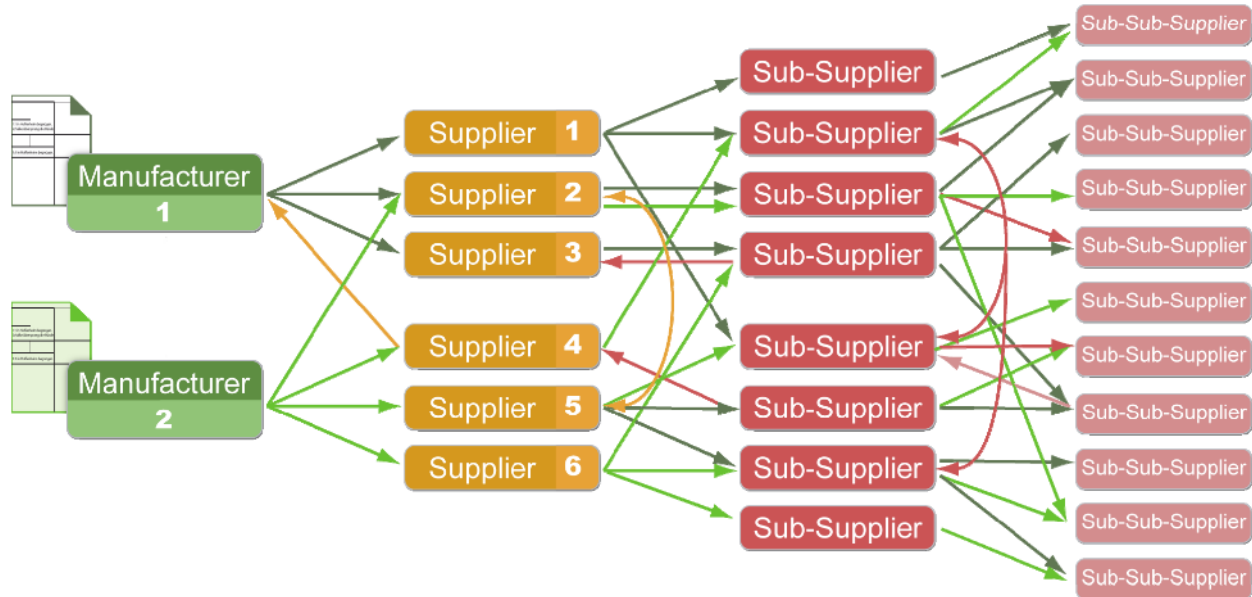
pollution prevention and control;



protection and restoration of
biodiversity and ecosystems.

EU Taxonomy – voor wie?





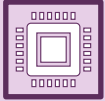
Praktijk is complex

EU Informatie eisen worden stringenter

Informatie is nodig voor het functioneren van de Circulaire Economie

Wat zijn de mogelijkheden?

Huidige initiatieven- ketenpartners



Electronica – Supplier Network – Blockchain



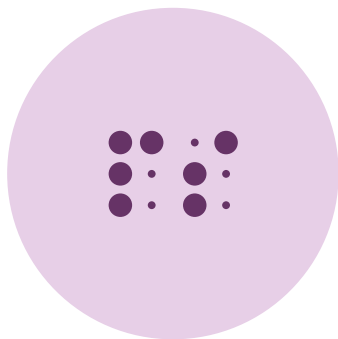
Automotive – REACH/SCIP – IMDS



Bouwsector –wettelijk verplicht 2022(?)- Materialenpaspoort

SECTIONS			STATEMENTS (EXAMPLES)
1		GENERAL INFORMATION	
2		COMPOSITION	<p>THE PRODUCT CONTAINS > 75-95 % POST-CONSUMER RECYCLED CONTENT BY WEIGHT</p> <p>THE PRODUCT DOES NOT CONTAIN SUBSTANCES OF VERY HIGH CONCERN FROM THE REACH CANDIDATE LIST IN CONCENTRATION ABOVE 0.1% BY WEIGHT</p>
3		DESIGNED FOR BETTER USE	THE PRODUCT CAN BE MAINTAINED & REPAIRED BY UNTRAINED PERSONNEL AT THE LOCATION OF THE PRODUCT USE
4		DESIGNED FOR DISSASSEMBLY	THE PRODUCT IS DESIGNED TO BE INSTALLED AND DEMOUNTED USING REVERSIBLE CONNECTORS
5		DESIGNED FOR RE-USE	<p>THE PRODUCT IS DESIGNED FOR RE-USE AS-IS OR WITH MINIMAL MODIFICATION</p> <p>THE PRODUCT IS DESIGNED FOR COMPOSTING IN A HOME COMPOSTER</p>

Hoe verder?



ER ZIJN EEN REEDS
BESTAANDE VERSNIPPERDE
INITIATIEVEN



EUROPESE WETTELIJKE
INFORMATIE EISEN NEMEN
SIGNIFICANT TOE



HOE KAN INFORMATIE BETER
WORDEN GEDEELD IN DE
KETEN?